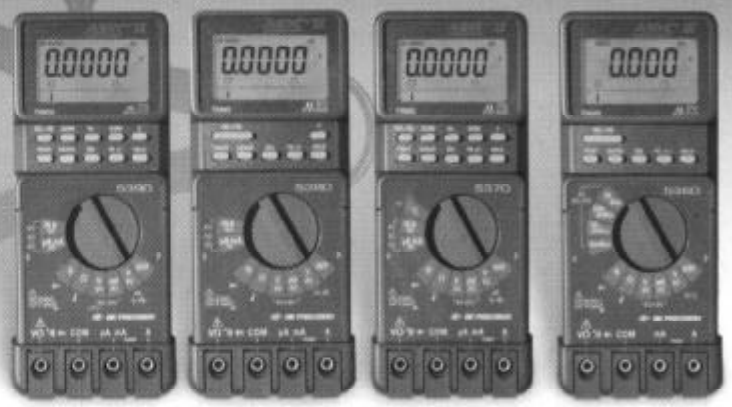
50,000 Count Premium DMM



5390 5380 5370 5360

The 5300 Series handheld DMM is the most advanced digital multimeter available in this price range. These meters incorporate a special 50,000 count integrated circuit for high-accuracy (0.025%) basic accuracy, high-reliability design. Measure AC Volts (True RMS AC, AC + DC), Resistance, Capacitance and Frequency, in addition to dB, Duty Cycle, Pulse Width, Power Line Disturbances and Temperature. These meters also feature fuse and battery access without breaking a calibration seal, great for ISO facilities. All models offer Peak Hold, Hold, Relative Mode and Backlight.

- **Precision 50,000 count instruments**
- **0.025% Basic DCV accuracy (Models 5380 and 5390)**
- **True RMS reading**
- **Large LCD display provides easy readability, all test parameters in clear view.**
- **Best value of any DMM**
- **CE safety approved**

Features

	models 5390	5380	5370	5360
Basic Functions				
Basic Accuracy	0.025%		0.05%	0.1%
Voltage (Best Resolution)	750VAC/1000VDC (10μV)			750VAC/1000VDC (100μV)
Current (Best Resolution)	10AAC/DC (10nA)			10AAC/DC (1μA)
Frequency	√		√	
Temperature Probe			√	
Duty Cycle	√		√	√
Event Counter	√			
Backlight	√	√	√	

Specifications

AC VOLTAGE
(Auto/Manual Ranging, True RMS)
Modes: AC or AC+DC, selectable
Accuracy at greater than 10% of range, 50,000 counts at Full Scale:

Ranges	DC to 1kHz	1 kHz to 4 kHz	4 kHz to 10 kHz	10 kHz to 30 kHz	30 kHz to 50 kHz	Resolution	Input Impedance
500 mV	0.3%R+30D	1%R+3D	5%R+30D	Not specified		10μV	10 MΩ/100 pf or 1 GΩ
5V	0.3%R+30D	1%R+3D	2%R+30D	2%R+30D	3%R+30D	100 μV	11 MΩ/100 pF
50V	0.3%R+30D	1%R+30D	2%R+30D	2%R+30D	3%R+30D1 mV	10 MΩ/100 pF	
500V	0.3%R+30D	1%R+30D	2%R+30D	2%R+30D	3%R+30D10 mV	10 MΩ/100 pF	
750V	0.3%R+30D	Not specified				100 mV	10 MΩ/100pF

50 kHz to 100 kHz (5V, 50 V, 500 V ranges): ±6% FS typical
Crest Factor: 6

model 5360

Accuracy at greater than 10% of range, 5,000 counts at Full Scale:

Ranges	DC to 1kHz	1 kHz to 5 kHz	5 kHz to 10 kHz	10kHz to 20 kHz	20 kHz to 30 kHz	Resolution	Input Impedance
500 mV	1%R+3D	4%R+3D	Not specified			100μV	10 MΩ/100 pF
5V	1%R+3D	1%R+3D	2%R+30D	2%R+3D	3%R+3D	1m V	11 MΩ/100 pF
50V	1%R+3D	1%R+3D	2%R+3D	2%R+3D	3%R+3D	10mV	10 MΩ/100 pF
500V	1%R+3D	1%R+3D	2%R+3D	2%R+3D	3%R+3D	100 mV	10 MΩ/100 pF
750V	1%R+3D		Not specified			1 V	10 MΩ/100pF

Crest Factor: 3

Specifications

	models 5390	5380	5370	5360

Unless otherwise stated, accuracy specifications apply from 18°C to 28°C. Specifications stated as n%R+nD, mean ±(n% of reading +n least significant digits). Accuracy specifications stated as n%FS, mean ±(n% of Full Scale)

DC VOLTAGE (Auto Manual Ranging)

Ranges	Accuracy				Resolution	Input Impedance
500 mV	0.025%R+2D	0.025%R+2D	0.05%R+2D	0.1%R+2D	10 µV	10 MΩ or 1 GΩ*
5V 0.025%R+2D	0.025%R+2D	0.025%R+2D	0.05%R+2D	0.1%R+2D	11 MΩ	
50V	0.025%R+2D	0.025%R+2D	0.05%R+2D	0.1%R+2D	1 mV	10 MΩ
500V	0.025%R+2D	0.025%R+2D	0.05%R+2D	0.2%R+2D	10 mV	10 MΩ
1000V	0.025%R+2D	0.025%R+2D	0.05%R+2D	0.3%R+2D	100 mV	10 MΩ

*(10 MΩ only on 5360)

AC/DC VOLTAGE PROTECTION

Overvoltage Protection	±1100 V DC + AC Peak
Transient Protection	6kV for 10 µs

DC CURRENT (Auto/Manual Ranging)

Ranges		Accuracy	Resolution	Max Burden Voltage
500µA	0.2%R+5D	Not Available	10 nA	700 mV
5 mA	0.2%R+2D	0.2%R+2D	100 nA	700 mV
50mA	0.05%R+2D	0.2%R+2D	1 µA	700 mV
500 mA	0.2%R+2D	0.2%R+2D	10 µA	1.5 V
10 A	0.5%R+2D	0.3%R+2D	1 mA	500 mV

AC CURRENT (Auto/Manual Ranging, True RMS) AC or AC + DC

Accuracy at greater than 10% of range, 50,000 counts at Full Scale:

models 5390 5380 5370

Ranges	DC to 1kHz	1 kHz to 10 kHz	10 kHz to 20 kHz	20 kHz to 30 kHz	Resolution	Input Impedance
500 µA	0.75%R+50D	0.75%R+50D	1.0%R+50D	3.0%R+50D	10 nA	700 mV
5 mA	0.6%R+50D	0.6%R+50D	1.0%R+50D	2.0%R+50D	100 nA	700 mV
50 mA	0.6%R+50D	0.6%R+50D	1.0%R+50D	2.0%R+50D	1 µA	700 mV
500 mA	0.7%R+50D	0.7%R+50D	Not specified		10 µA	1.5 V
10 A	1% of FS		Not specified		1 mA	500 mV

Crest Factor: 6

AC CURRENT

Accuracy at greater than 10% of range, 5,000 counts at Full Scale:

model 5360

Ranges	DC to 5 kHz	Resolution	Max Burden Voltage
5 mA	1.0%R+3D	1 µA	700 mV
50 mA	1.0%R+3D	10 µA	700 mV
500 mA	1.0%R+3D	100 mA	1.5 V
10 A	1% of FS	10 mA	500 mV

Crest Factor: 3

RESISTANCE (Auto/Manual Ranging)

models 5390 5380 5370 5360

Ranges	Accuracy		Resolution	Test Current
500 Ω	0.07%R+5D	0.1%R+5D	10 mΩ	1 mA
5 kΩ	0.07%R+2D	0.1%R+2D	100 mΩ	100 µA
50 kΩ	0.07%R+2D	0.1%R+2D	1 Ω	10 µA
500 kΩ	0.07%R+2D	0.1%R+2D	10 Ω	1 µA
5 MΩ	0.3%R+2D	0.3%R+2D	100 Ω	100 µA
50 MΩ	1.0%R+2D	1.0%R+2D	1 kΩ	10 µA

CAPACITANCE (Auto/Manual Ranging)

models 5390 5380 5370 5360

Range	Accuracy		Measurement Resolution	Measurement Current	Max Time
50 nF	1.0%R+2D	1.0%R+2D	10 pF	100 nA	0.5 sec
500 nF	1.0%R+2D	1.0%R+2D	100 pF	1 µA	0.5 sec
5 µF	1.0%R+2D	1.0%R+2D	1 nF	10 µA	0.5 sec
50 µF	1.0%R+2D	1.0%R+2D	10 nF	100 µA	0.5 sec
500 µF	1.0%R+2D	1.0%R+2D	100 nF	1 mA	1.5 sec
5000 µF	1.0%R+2D	2.0%R+2D	1 µF	1 mA	3 sec/ mF
50 mF	1.0%R+2D	2.0%R+2D	10 µF	1mA	3 sec/ mF

FREQUENCY (Autoranging)

models 5390 5380 5370 5360

Range: 0.6 Hz to 500 kHz

Accuracy: ±(0.03% rdg+1 digit)

Ranges	500 mV (5390, 5370)	5V to 500 V 500 µA to 500 mA	750 V	10 A (5390, 5370)
0.6Hz to 5kHz	2% of FS	2% of FS	100 V	2 A
5 kHz to 50 kHz	5% of FS	5% of FS	250 V	Not specified
50 kHz to 500 kHz	Not specified	10% of FS	Not specified	

Accessories

SUPPLIED:

Test Leads, Spare Fuses, Instruction Manual

OPTIONAL:

- TL-130A General Purpose DMM Kit
- TP-5300 Platinum Temperature Probe (for 5370)
- AK-5350 Calibration Software (AK-5300 Hardware required)
- AK-5300 Communications Hardware & LabView® drivers

Common Features

CONTINUITY - Threshold: 10Ω to 20Ω

DIODE TEST - Measures forward voltage drop of diode 0 to 1.999V

dB MEASUREMENT - 5390 and 5370 - Measures value relative to a reference from 1 to 9999 Ω, 5380 at 600Ω

PEAK HOLD - Selection: Peak + or Peak- (surge or sag) Acq. Time: < 1ms

DUTY CYCLE: 5390, 5370, 5360-Modes: Selectable %+ ,or %- Min

EVENT COUNTER (Model 5390) - Range: 0 to 99999 (Totalize)

MIN PULSE DURATION: 2 µs

PULSE WIDTH (Model 5390) Modes: Selectable +, - Min. Pulse Width: 20µs Max Pulse Period: 12.5 µs

TEMPERATURE (Model 5370) Using Model TP-5300 Probe (Optional)

RANGE: -200° to +800°C

Computer Interface: RS232 capability built-in. Requires AK-5300

GENERAL

Display: 50,000 count resolution LCD, 0.55" (14mm) digit height. 34 segment analog bargraph

Measurement Rate: 2/sec., 20/sec - bargraph

Power: 9V (NEDA 1604) Battery Life: 500 hrs

Dimensions: 1.57 x 3.23 x 7.44" (40 x 82 x 189mm)

Weight: 14 oz (397g)

Three Year Warranty